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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,463	02/09/2001	Chi-Yu Liao	API084	9449

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NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER

SCHECHTER, ANDREW M

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,463

Applicant(s)

LIAO, CHI-YU

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 19 June 2003 have been fully considered but they are not persuasive.

The amended limitation "the circumference of the roller being equal to or greater than the length of the back-light plate" is not explicitly disclosed by the references, but is a necessary condition for the method to produce the back-light plate disclosed in *Suzuki*. As the applicant states "the circumference of the roller 22 must be larger than the length W2 of the back-light plate 30 to avoid producing any larger recess 36 in the center portion" [p. 6], and the same reasoning clearly applies to the plate of *Suzuki* – if this limitation were not met, then the recesses would not be able to increase in size from one end to the other. The previous rejections are therefore maintained, modified as required by the amendments to the claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki et al.*, Japanese Patent Document No. 4-278922 in view of *Umemoto et al.*, U.S. Patent No. 6,199,995 and further in view of *Fukui et al.*, U.S. Patent No. 5,980,054.

Suzuki discloses [see Figs. 1 and 2, for instance] a method of forming a uniform illumination pattern in a back-light plate [2], the back-light plate comprising two parallel illuminating faces [top and bottom] and an incident side [next to the light 5], and when a visible light is incident it is reflected through the illuminating faces [shown in Fig. 1c, for instance], by forming a plurality of recesses [6] with predetermined depths, which forms the pattern to make the plate uniformly illuminated. *Suzuki* does not explicitly disclose [from the figures] that the method utilizes a press with a plurality of protruding elements to press an illuminating face to form the recesses, or that the press comprises a roller, the protruding elements being formed on the rolling surface of the roller, the circumference equal to or greater than the length of the back-light plate.

However, utilizing such a press to form the recesses is one of several methods recommended by *Umemoto* [col. 11, lines 9-20] for making an analogous device. Among the methods listed (which are considered art-recognized equivalents to each other) is “transferring a specified shape to a thermoplastic resin by pressing it under heating to a mold capable of forming that shape”. It would have been obvious to one of ordinary skill in the art to use this method, motivated by *Umemoto*’s teaching that it is preferred from the viewpoint of allowing for mass production.

The device of *Suzuki* in view of *Umemoto* does not disclose using a roller to form the recesses. However, using a roller is an art-recognized equivalent to using a (flat)

press to mold the back-light unit, as evidenced by *Fukui* [col. 7, lines 25-27], listing "press molding, injection molding, roller molding, or the like" as methods of preparing an analogous photoconductor. It therefore would have been obvious to one of ordinary skill in the art, motivated by the equivalence of the two methods, to use a roller with protruding elements on the rolling surface, to produce the recesses.

The final limitation of claim 1, that the circumference is equal to or greater than the length of the back-light plate, is a necessary condition for using such a roller to form the back-light plate of *Suzuki*, with its recesses increasing in size uniformly from one end to the other. This limitation is therefore inherently met, so claim 1 is unpatentable.

As noted above, *Umemoto* teaches pressing under heating, so claim 5 is also unpatentable.

Regarding the additional limitation of claim 2, *Suzuki* does not explicitly disclose [from the figures] that the back-light plate is for a flat-bed scanner or an LCD monitor, though such use is well-known and conventional. *Fukui*, for instance, discloses that an analogous back-light plate is used for back-lighting an LCD monitor [col. 1, lines 5-7], and it would be obvious to one of ordinary skill in the art to use the device of *Suzuki* this way, motivated by such use being conventional and providing a commercial use for *Suzuki*'s device. Claim 2 is therefore unpatentable.

Regarding the additional limitation of claim 3, *Suzuki* discloses that the recess size is larger and the spacing with its adjacent recess is shorter as the distance between the recess and the incident side gets longer [see Figs. 1 and 2]. (This feature

was relied upon above to show that the circumference of the roller would have to be equal to or greater than the length of the plate.) Claim 3 is therefore unpatentable.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (703) 306-5801. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AS

Andrew Schechter
18 August 2003

TOANTON
PRIMARY EXAMINER